

CLAIMS

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application. Deletions are denoted by [~~striketrough~~] and additions are denoted by underline.

Listing of Claims:

1.-41. (Cancelled)

42. (Currently Amended) A method for treating a retinal disease, comprising inserting in a subretinal space of a patient in need thereof a composite comprising amniotic membrane and [~~confluent~~] non-immortalized retinal pigment epithelial cells or [~~confluent~~] non-immortalized retinal pigment epithelial equivalent cells on the membrane, wherein the number of non-immortalized retinal pigment epithelial cells or non-immortalized retinal pigment epithelial equivalent cells on the membrane is from about 16,000 to about 20,000 per 4 mm² of amniotic membrane.

43. (Cancelled) The method of claim 42, wherein the number of retinal pigment epithelial cells or retinal pigment epithelial equivalent cells on the membrane is from about 16,000 to about 20,000 per 4 mm² of amniotic membrane.

44. (Cancelled)

45. (Previously Presented) The method of claim 42, wherein the retinal disease that is treated is selected from the group consisting of retinal detachment, gyrate atrophy, choroideremia, and age-related macular degeneration.

46. (Original) The method of claim 42, wherein the amniotic membrane is human amniotic membrane.

47. (Previously Presented) The method of claim 42, wherein the retinal pigment epithelial cells comprise retinal pigment epithelial cells cultured on the amniotic membrane.

48. (Original) The method of claim 42, wherein the composite further comprises a pharmaceutically active molecule.

49. (Original) The method of claim 48, wherein the pharmaceutically active molecule is selected from the group consisting of growth factors, enzymes, and therapeutic drugs.

50.-52. (Cancelled)

53. (Previously Presented) The method of claim 42, wherein the amniotic membrane is epithelially denuded.

54. (Previously Presented) The method of claim 42, wherein the amniotic membrane is intact amniotic membrane comprising a basement membrane and a stroma.

55. (Previously Presented) The method of claim 54, wherein mesenchymal cells are added to at least one side of the stroma before insertion in a subretinal space of a patient.

56. (Previously Presented) The method of claim 55, wherein the mesenchymal cells are fibroblasts.

57. (Previously Presented) The method of claim 42, wherein the amniotic membrane is treated on at least one side with excimer laser ablation before insertion in a subretinal space of a patient.

58. (Previously Presented) The method of claim 57, wherein the excimer laser ablation alters the thickness of the stromal side or basement membrane side of the amniotic membrane.

59. (Previously Presented) The method of claim 42, wherein the retinal pigment epithelial equivalent cells comprise cells selected from the group consisting of iris pigment epithelial cells, retinal pigment epithelial cells differentiated from at least one adult or embryonal stem cell, cells derived from neural retinal cells, and cells derived from a ciliary body.

60. (Withdrawn) The method of claim 49, wherein the pharmaceutically active molecule is a growth factor selected from the group consisting of retinal pigment epithelium-derived growth factor, transforming growth factor-beta, and interleukin-10.

61. (Previously Presented) The method of claim 42, wherein the composite is formed by:

- a) applying at least one retinal pigment epithelial cell or retinal pigment epithelial equivalent cell to an amniotic membrane; and
- b) culturing the retinal pigment epithelial cell or retinal pigment epithelial equivalent cell on the membrane under conditions suitable for growth for a period of time sufficient to produce a plurality of cultured cells.